

I CLAIM AS MY INVENTION:

Sub A²⁷ → 1. A piezoelectric resonator arrangement comprising a mount having at least two mounting elements and having at least one platelike piezoelectric resonator having at least one excitation electrode from which at least one electrically conductive strip extends in the direction of the edge of the resonator, the resonator being clamped between the mounting elements in a plane, of which at least one element presses on the resonator with a force, said mounting elements abutting immediately and directly on at least one lateral surface of the resonator, wherein the resonator is fixed between the mounting elements without the use of an adhesive, the electrically conductive strip extends at least up to the lateral surface of the resonator, and at least one adhesive-free electrical point of contact with the resonator is provided on the lateral surface of the resonator, the electrical contacting forces lying essentially in one plane with the resonator.

2. An arrangement according to claim 1, wherein the electrical contacting forces exerted by the mounting elements are directed essentially radially to a center of the resonator.

3. An arrangement according to claim 1, wherein on at least one of the mounting elements, at least one electrical contact surface is provided and faces at least one lateral surface of the resonator.

Sub A²⁸ → 4. An arrangement according to claim 3, wherein on at least two mounting elements, at least one electrical contact surface is respectively provided which faces at least one lateral surface of the resonator, at least one second electrically conductive strip extends radially from at least one excitation electrode of the resonator, and both conductive strips extend to the lateral surface of the resonator and into the region, respectively, of one of the electrical contact surfaces of the mounting elements.

5. An arrangement according to claim 4, wherein the electrical contact surfaces of two mounting elements are connected with one another via at least one arrangement for measuring the electrical resistance.

6. An arrangement according to claim 4, wherein the electrical contact surfaces of two mounting elements are connected with one another via at least one arrangement for the production and regulation of a current flow.

7. An arrangement according to claim 1, wherein at least one of the mounting elements is mounted on a base in an elastically resilient fashion.

8. An arrangement according to claim 1, wherein at least one of the mounting elements is connected with a base structure in an elastically resilient fashion.

9. An arrangement according to claim 1, wherein at least one of the mounting elements is made up of an essentially rigid part and a part that is essentially elastically deformable, whereby the elastic part is located closer to a base structure on which the mounting elements are mounted.

10. An arrangement according to claim 9, wherein at least one of the mounting elements is constructed as an oblong mounting arm having at least one essentially rigid longitudinal segment and one essentially elastically deformable segment.

11. An arrangement according to claim 9, wherein at least one essentially rigid mounting element is mounted to the base structure in a resilient fashion by means of an elastic element.

12. An arrangement according to claim 1, wherein the mounting elements are provided with mounting structures that determine a definite orientation of the installed resonator, and on which structures the electrical contact surfaces are provided.

13. An arrangement according to claim 1, wherein at least one of the mounting elements is manufactured from ceramic material.

14. An arrangement according to claim 12, wherein the mounting elements are mounted on a base structure and the base structure is manufactured from a ceramic material.

15. An arrangement according to claim 13, wherein the mounting elements and the base structure comprise a one-piece construction.

16. An arrangement according to claim 1, wherein electrical lines and contact surfaces on the mounting arrangement are provided that are made of direct coatings of electrically conductive materials.

17. An arrangement according to claim 1, wherein the at least one electrically conductive strip extends radially.

18. A piezoelectric resonator arrangement comprising a mount having at least two mounting elements on a base structure and having at least one platelike piezoelectric resonator clamped between the mounting elements, of which at least one mounting element presses on the resonator with a force, wherein the mounting elements abut immediately and directly on the resonator and fix the resonator in the arrangement without the use of an adhesive, the points of contact of the mounting elements with the resonator lie essentially in one plane, said plane being essentially parallel to a plane of the resonator, and the mounting and contacting forces exerted by the mounting elements lie essentially parallel to the plane of the resonator.

19. An arrangement according to claim 18, wherein the points of contact of the mounting elements with the resonator are provided exclusively on at least one lateral surface of the resonator.

20. An arrangement according to claim 18, wherein the resonator has at least one surface region which is provided with at least one electrode that covers at least one part of this surface region, whereby an electrically conductive strip extends from the electrode in the direction of an edge of the surface region, wherein the conductive strip extends from the surface region having the electrode beyond the edge thereof, up to a region of transition to an adjacent surface region.

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